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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,702	03/10/2000	Jiandong Huang	H16-26157	5911

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EXAMINER

NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 05/22/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/522,702

Applicant(s)

HUANG ET AL.

Examiner

Chau Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-27 are presented for examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Law, Jr. et al. (Law), Patent No. 6,370,654, and further in view of Tosey et al. (Tosey), Patent No. 6,392,990.

5. As to claims 1, 10, and 19, Law discloses a method of managing communication with non-fault tolerant network nodes in a fault-tolerant computer network, comprising:

determining network nodes present in a plurality of networks that are not fault-tolerant and are connected to only a single network (Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1);

determining the network on which each non-fault tolerant network node exists (Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1);

sending data intended for a non-fault tolerant network node over the network on which the non-fault tolerant network node has been determined to exist ((Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1);

However, Law does not disclose storing the detected network address data of the non-fault tolerant network nodes and storing associated network data comprising the network on which the non-fault tolerant network node exists therewith. In the same field of endeavor, Tosey discloses a router learns the routes by creating a routing table by searching for the network address of each network device on a network, the router then selects the routes for the data packets sent through the router by searching for the shortest path between a destination node and a source node (col. 1, line 55 – col. 2, line 18). Since Tosey teaches a method and system for implementing interface redundancy in a computer network so that communication between computing devices connected to the network is always available, which is similar to the method and apparatus to extend



the fault-tolerant abilities of a node into a network of Law, it would have been obvious to one of ordinary skills in the art at the time the invention was made to combine the teachings of Law and Tosey to include storing the detected network address data of the non-fault tolerant network nodes and storing associated network data comprising the network on which the non-fault tolerant network node exists therewith. Tosey suggests that implementing interface redundancy in a computer network would reduce or eliminate disruptions in network connections established by computer applications or other higher layer connections.

6. As to claims 2, 11, and 20, Law and Tosey (Law-Tosey) disclose wherein determining the network addresses of non-fault-tolerant network nodes comprises detection of network address information that the non-fault-tolerant network nodes send over a network (Law, Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1; Tosey, col. 1, line 55 – col. 2, line 18).

7. As to claims 3, 12, and 21, Law-Tosey disclose wherein the network address information that is sent comprises Internet Protocol Address Resolution Protocol packets (IP ARP packets) (Tosey, col. 2, lines 19-46)

8. As to claims 4, 13, and 22, Law-Tosey disclose wherein determining the network on which each non-fault-tolerant network node exists comprises determining which

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network interface received the network address information sent from each non-fault-tolerant network node (Tosey, col. 1, lines 41-67 and col. 7, lines 14-34).

9. As to claims 5, 14, and 23, Law-Tosey disclose wherein storing the data comprises populating a non-fault-tolerant network node address table (Tosey, col. 2, lines 19-46 and col. 9, lines 24-35).

10. As to claims 6, 15, and 24, Law-Tosey disclose sending data intended for a non-fault-tolerant network node over both the primary and redundant network if the network on which the non-fault-tolerant network node exists has not been determined (Tosey, col. 3, lines 20-34)

11. As to claims 7, 16, and 25, Law-Tosey disclose wherein determination of whether the network on which the non-fault-tolerant network node exists has been determined comprises:

searching an address table for the stored data (Tosey, col. 2, lines 1-18);

determining the network on which the non-fault-tolerant network node exists has been determined if the address table contains an entry for the non-fault-tolerant network node (Law, Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1; Tosey, col. 1, lines 1-18);
and

determining the network on which the non-fault-tolerant network node exists has not been determined if the address table does not contain an entry for the non-fault-tolerant network node (Tosey, col. 3, lines 20-52).

12. As to claims 8, 17, and 26, Law-Tosey disclose a method of managing communication with non-fault tolerant network nodes in a fault-tolerant computer network, comprising:

transmitting data from a transmitting node to a non-fault tolerant network node over a primary network (Law, Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1; Tosey, col. 6, lines 6-24) and

transmitting data from the transmitting node to the non-fault tolerant network node over a redundant network (Law, Abstract, col. 1, line 47 – col. 2, line 14 and Fig. 1; Tosey, col. 6, lines 6-24).

13. As to claims 9, 18, and 27, Law-Tosey disclose receiving and retransmitting the data via an intermediate node when the transmitting node is unable to communicate with both the primary and redundant networks, such that if the intermediate node receives the data via the redundant network it retransmits the data on the primary network and if the intermediate node receives the data via the primary network it retransmits the data on the redundant network (Tosey, col. 4, line 61 – col. 5, line 3, col. 9, lines 45-64).

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Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (703) 305-4639. The Examiner can normally be reached on Monday-Friday from 7:30am to 4:30pm.

15. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Powell, can be reached at (703) 305-9703.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 746-7238 (After Final Communications only)

(703) 746-7239 (Official Communications)

(703) 746-7240 (for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

Chau Nguyen
Patent Examiner
Art Unit 2142

MARC THOMPSON
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703.308.6750